Blending Contextual Integrity and Social Exchange Theory: Assessing Norm Building Under Conditions of "Informational Inequality"

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1 Introduction

With this position paper we aim to begin a discussion around a particular aspect of contextual integrity theory (CI), namely norm construction within a specific domain: online information exchanges between institutions and individuals under conditions of "informational inequality". [1, 2] These are conditions of information exchange under which "entities, such as governments and financial institutions, wield significant power over the fates of individual citizens and clients". "Allowing these institutions free reign in collecting and using information," Nissenbaum notes, "further tips the balance of power in their favor". [1]

We argue that such conditions of inequality are pervasive in today's online information-sharing environment. And while CI broaches this matter, it does not explain how "appropriate" norms—a key concept in the theory—may be disproportionately affected by structures of informational inequality. We propose that social exchange theory (SET), with its focus on power as a constitutive element of social norms, can complement CI's explanatory value in understanding information privacy.

Our position is that we need to pay special attention to how power imbalances, especially in the context of online information flows, may have actually *shaped the very norms* that we then utilize as the basis from which to evaluate the fairness of our online experience. A SET approach helps clarify, in other words, the ways in which power asymmetries may significantly influence the construction of norms.

In this position paper we ask: how are 'appropriate' norms determined in the context of what Nissenbaum describes as 'informational inequality'? What kinds of social processes constructed these norms in the first place? We suggest that social exchange theory (SET) can offer a complementary approach to contextual integrity, one that allows us to closely interrogate the processes of norm-building under conditions of significant power inequality.

2 Social Exchange Theory: A Brief Overview

Social Exchange Theory (SET) is in actuality a set of theories focusing "on the benefits people obtain from, and contribute to, social interaction." [5] The main assumptions (or scope conditions) of social exchange theory are that:

1. Behavior is motivated by the desire to increase gain and to avoid loss;

2. Exchange relations develop in structures of mutual dependence (that there is some reason to engage in exchange to obtain resources of value);

3. Actors engage in recurrent, mutually contingent exchanges with specific partners over time;

4. Valued outcomes obey the psychological principle of satiation. [3, 5]

Understanding the influence of power on exchange relations is a core component of SET. According to SET theorists Linda Molm and Karen Cook, "*power* is a potential that derives from the structural relations among actors—their relative dependence on one another" [5, emphasis in original]. Much of the research examining power differentials in SET has focused on network structures, such as how an actor's relative position in a network can lead to predictable differences in the use of power. [5] According to Molm, following Richard Emerson's "theory of power-dependence relations," the key to understanding "structural power" is "by proposing that structure determines power use, regardless of actors' intentions to use power or their awareness of the power structure." [6] Thus, we shouldn't think of power as the result of individual action, but rather as the process of exchange within a given system of relations. In a similar manner, Cook and Emerson define power as "an attribute of position in a network structure observable in the occupant's behavior, even though the occupant does not know what position or what amount of power s/he possesses." [5]

Power obtained as the result of one's position in the network means also that *power dependency* is a key aspect of SET: "an actor is dependent on another to the extent that outcomes valued by the actor are contingent on exchange with the other." [5] Exercises of power, which operate on the premise of power dependency, occur when one actor uses their position to gain advantage in exchange over another. Actors can mitigate power dependency when they have multiple alternatives for exchange because, as SET theory predicts, "actors with few or no alternatives are vulnerable to exploitation." [5] Therefore, one's dependence increases as one's access to exchange alternatives decreases, and the actor with greater control over the valued resource in the exchange has more capacity to exercise power.

Conditions of power, according to SET, construct and constrict the very kinds of social exchanges possible within a network of information flows. More so, over time these exchanges of information develop into cultural rituals—they become the established social practice and emerge as the accepted norms that govern behavior within a social domain. To summarize: network architectures determine to a significant degree the distribution of power between actors. The way power is distributed in turn shapes, over time and through the daily processes of social exchange, the rituals and processes, indeed the very social practices and norms that mediate social relations. Therefore, the greater the power inequality within the network, the greater the possibility that the norms of a particular social domain are one-sided; the larger the power differential between the actors in a network, the bigger the chances that power actors do not account for the interests of those least powerful. To be sure, the explicit recognition of power in exchange relationships differentiates the theory from the classic model of economic exchange, where actors are generally portrayed as on an equal footing. SET incorporates both the reality of inequality between social actors as well as the influence of social network structure on exchange relationships. As Cook and Cheshire describe it, "[p]ower inequality is an inevitable outcome of differentiation in resources and structural position. Over time some actors gain positions of advantage in their exchange relations (or networks of exchange relations) and thus have the capacity to exploit this advantage." [4]

In SET, as also in contextual integrity, power asymmetry is not inherently negative. Cook and Cheshire note, for example, that without differentiation in resources and preferences between actors there would be little reason for exchange; universal equality would not foster exchange. Power differentials between actors are not inherently bad nor do they exclusively result in poor outcomes for the power-disadvantaged actors. However, as Emerson argues, relations of power inequality are also inherently unstable, which also suggests that SET allows for the possibility of reducing a networks' power asymmetries. According to Cook *et al*, "[t]he important feature of power inequality is that it creates strains in exchange relations and provides an impetus for structural change." [2] In unbalanced relations power use by the more powerful actor tends to increase over time, and while power use can be purposive, it need not be—the structure of the relation itself may simply create power differentials. [5]

3 Power, Exchange Relationships, and Norms

SET suggests that when we share our personal information with companies, we do so under norms that have evolved over time through an ongoing exchange relationship between the individual and the company. Certainly, individual-to-company exchanges of personal information existed prior to the digital age, and as we began to transition from pre-Internet to Internet-based exchanges, we carried the norms that evolved in those exchange relationships forward into the digital realm.

But seen from the vantage point of a twenty-five years evolution of the Internet, and through the lens of SET, it is clear that institutions and companies have had an unprecedented opportunity to shape the Internet's norms because of their powerful structural position. In some instances, this shaping of norms has been a reciprocal process that involves individuals and groups co-creating and adapting existing norms to new digital realms; but in other instances, large companies have been able to use their power to create new norms of information disclosure that are, in essence, quantum leaps in norm building. These have been extremely beneficial to the bottom line of those companies but of questionable social value for the public at large, particularly because the public had little or no input to the development of these norms in the first place. Below we present an example to help clarify the value of SET as a lens that may help explain the role of power asymmetries in the creation of norms.

4 Facebook and Privacy: The New Normal

In 2009, Facebook instigated a quantum leap in norm creation by instituting major changes to their platform's privacy settings. In sum, the company decided to implement a default level of public visibility to all of its users' profiles, forcing them to individually override (to 'opt-out') from these settings if they did not want a core set of profile information to be publicly available on the Internet. Further, they introduced what they called "friends' permission" to their app platform, a feature designed to encourage viral use of third-party apps by giving those app developers access to the profile information of the user who downloaded the app and, also, to all of their friends' profile information. This introduced a level of information sharing both beyond the boundaries of Facebook as well as to third party app developers that no other business had done at the time. Nor has anyone still; the friends' permission feature remains unique among social media platforms.

 At the time, Mark Zuckerberg justified these changes by stating, "People have really gotten comfortable not only sharing more information and different kinds, but more openly and with more people". "That social norm," he argued, "is just something that has evolved over time." [7] But how did that norm evolve? Zuckerberg made it appear as if that norm emerged organically as the result of a variety of social interactions over time, and that Facebook was simply acquiescing to public demand, rather than forcing a change to information disclosure for the company's benefit.

SET would suggest that this is a case in which social norms did not organically emerge but were instead shaped by the company's position of power in the exchange network. Facebook introduced information exchange practices that created a new 'normal' in information sharing online, one that no other social media company had done at the time. Nor has anyone still; the friends' permission feature, especially, remains unique among social media platforms.

Facebook faced immediate and sustained backlash for these actions, and became the focus of an investigation by the Federal Trade Commission, resulting in a consent decree that forced the company to revamp its privacy controls and obtain express consent for future product changes related to privacy that override a user's existing privacy settings.[1] But crucially, the consent decree did not force the company to roll back the changes Facebook made to their privacy defaults. It left those changes untouched, allowing thus for Facebook to forge a new normal in visibility and disclosure, in turn validating Zuckerberg's aggressive actions. Zuckerberg went two steps forward, that is, and regulatory authorities such as the FTC pushed his company only one step back.

Ultimately, Facebook has been forced, incrementally, to undo many of their 2009 changes. In part this was due to strategic business concerns; internal UX research demonstrated that many users weren't happy with the aggressive defaults, and it also became clear that as the company embarked on a global expansion effort, their US strategy was a liability abroad, either due to legal or cultural challenges.[2] It also became clear to the company, even prior to the Cambridge Analytica scandal becoming public, that the friends' permission feature was presenting them with security challenges, and the company pulled it in 2015 without publicly revealing that the feature was being misused. However, by then the damage had already been done; by then, Cambridge University researcher Aleksandr Kogan already used the feature to harvest information from over 80 million profiles, which would he would in turn sell to Cambridge Analytica [6].

The damage done to the norms of online information sharing by Zuckerberg's move is essentially incalculable. In a single day, the company was able to make a change that directly affected its then 350 million users, as well as the billion or so more who signed up with Facebook after that date. It was not, as Zuckerberg claimed, a reflection of shifting norms, but rather a power grab by a company that could use its dominant position in the network to advance a set of conditions for its own benefit. There is no question that this move violated the norms of contextual integrity for personal information sharing on social media. The problem was that the company did not care, and suspected—rightly—that they could get away with it.

5   How do we account for power in CI?

We think this example raises several interesting issues. First, while CI, if used by Facebook, would have undoubtedly illustrated the violations that these new information flows introduced, the unfortunate truth is that the company was operating under a different set of assumptions. Namely, their position of power in the network between themselves and their users gave them an advantage to dictate the terms of the exchange, and they assumed that their users would neither find alternative social networks to patronize, nor collectively organize to resist the changes.

Next, we think this example illustrates how powerful actors can manipulate the norms of exchange for their own advantage, undermining the meaning of contextually appropriate norms. It is notable that Facebook did not entirely succeed in this endeavor, and ultimately had to retreat from their original position. But, their retreat did not collectively reset our expectations around information sharing back to the year 2008. While the worst of their excesses were checked, this shaping information-sharing norms to their advantage allowed the company to significantly redefine the public's expectations around what is appropriate behavior in online contexts.

In this particular example Facebook may have hedged their bets too soon in the evolution of norms around online information sharing. However, the company clearly had a longer-term goal in mind, which was the eventual evolution of the norms of online social interaction from mere refractions of offline behavior to interactions with rules increasingly of their own, endemic to an online context. While Facebook in particular may still be an online meeting place primarily for people who do know one another in the offline world, there are a growing number of digital social experiences for which there is not a clear, preexisting offline analogue. And while undoubtedly social norms will emerge in any context where humans interact, the power of online platforms to deliberately shape social norms to their own advantage cannot be overlooked. Which leads us to question: what implications will this have for contextual integrity, if norms in digital contexts continue to be influenced by those with the power to construct their architectures as well as significantly influence the shaping of norms themselves?

6   References

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1 https://www.ftc.gov/news-events/press-releases/2011/11/facebook-settles-ftc-charges-it-deceived-consumers-failing-keep
2 Based on a conference presentation given by a Facebook UX researcher at workshop in 2015 that one author attended.

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